

## Claim Amendment Summary

### **Claims pending**

- At time of the Action: Claims 1-21 and 26-35.
- After this Response: Claims 1-21, 26-32 and 34-35.

**Canceled or Withdrawn claims:** 33.

**Amended claims:** 1, 10, 15, 26, 32, and 35.

**New claims:** none.

The listing of claims below will replace prior versions of claims in the application:

1. **(CURRENTLY AMENDED)** An apparatus comprising:  
a first device;  
a first connector coupled to the first device;  
a second connector coupled to the first connector through a first plurality of conductors, wherein alternating pairs of conductors are reversed such that at least one pair of conductors is reversed at a crossover position located substantially closer to the first connector than the second connector; and  
a second device coupled to the second connector through a second plurality of conductors.

2. **(ORIGINAL)** An apparatus as recited in claim 1 wherein the first device includes a plurality of differential drivers.

3. **(ORIGINAL)** An apparatus as recited in claim 1 wherein the second device includes a plurality of differential receivers.

1  
2 4. **(ORIGINAL)** An apparatus as recited in claim 1 wherein the first  
3 device is an integrated circuit.

4  
5 5. **(ORIGINAL)** An apparatus as recited in claim 1 wherein the first  
6 device is an integrated circuit disposed on a substrate, wherein the substrate is  
7 electrically coupled to the integrated circuit and the first connector.

8  
9 6. **(ORIGINAL)** An apparatus as recited in claim 1 wherein the second  
10 device is an integrated circuit.

11  
12 7. **(ORIGINAL)** An apparatus as recited in claim 1 wherein the first  
13 device has an inductive coupling coefficient substantially the same as the  
14 inductive coupling coefficient of the second device.

15  
16 8. **(ORIGINAL)** An apparatus as recited in claim 1 wherein the  
17 alternating pairs of conductors are reversed once between the first connector and  
18 the second connector.

19  
20 9. **(ORIGINAL)** An apparatus as recited in claim 1 wherein alternating  
21 pairs of conductors in the second plurality of conductors are reversed.

22  
23 10. **(CURRENTLY AMENDED)** An apparatus comprising:  
24 a first integrated circuit including a plurality of differential drivers;  
25 a first connector coupled to the first integrated circuit;

1 a second connector coupled to the first connector through a plurality of  
2 electrical conductors, wherein alternating pairs of the electrical conductors are  
3 reversed such that at least one pair of conductors is reversed at a crossover  
4 position located substantially closer to the first connector than the second  
5 connector; and

6 a second integrated circuit coupled to the second connector, wherein the  
7 second integrated circuit includes a plurality of differential receivers.

8  
9 11. **(ORIGINAL)** An apparatus as recited in claim 10 further  
10 comprising a second plurality of electrical conductors coupled between the second  
11 connector and the second integrated circuit, wherein alternating pairs of the second  
12 plurality of electrical conductors are reversed.

13  
14 12. **(ORIGINAL)** An apparatus as recited in claim 10 further  
15 comprising a second plurality of electrical conductors coupled between the second  
16 connector and the second integrated circuit, wherein each pair of conductors  
17 includes an inverted conductor and a non-inverted conductor, each inverted  
18 conductor coupled to a non-inverted input of one of the differential receivers, and  
19 each non-inverted conductor coupled to an inverted input of one of the differential  
20 receivers.

21  
22 13. **(ORIGINAL)** An apparatus as recited in claim 10 wherein the first  
23 integrated circuit has an inductive coupling coefficient substantially the same as  
24 the inductive coupling coefficient of the second integrated circuit.  
25

1           14.   **(ORIGINAL)** An apparatus as recited in claim 10 wherein the  
2 alternating pairs of electrical conductors are reversed once between the first  
3 connector and the second connector.  
4

5           15.   **(CURRENTLY AMENDED)** An apparatus comprising:  
6 a printed circuit board;  
7 a plurality of connectors disposed on the printed circuit board;  
8 a first integrated circuit disposed on a first substrate, wherein the first  
9 substrate is configured to be coupled to one of the plurality of connectors;  
10 a second integrated circuit disposed on a second substrate, wherein the  
11 second substrate is configured to be coupled to one of the plurality of connectors;  
12 and  
13 a first plurality of electrical conductors coupled to the plurality of  
14 connectors, wherein alternating pairs of conductors between adjacent connectors  
15 are reversed such that at least one pair of conductors is reversed at a crossover  
16 position located substantially closer to one of the plurality of connectors than  
17 another of the plurality of connectors.  
18

19           16.   **(ORIGINAL)** An apparatus as recited in claim 15 wherein the  
20 printed circuit board is a backplane.  
21

22           17.   **(ORIGINAL)** An apparatus as recited in claim 15 further  
23 comprising a second plurality of conductors coupled between the first integrated  
24 circuit and one of the plurality of connectors, wherein alternating pairs of  
25 conductors have reversed polarity.

1  
2 18. **(ORIGINAL)** An apparatus as recited in claim 15 wherein the first  
3 substrate is a printed circuit board.

4  
5 19. **(ORIGINAL)** An apparatus as recited in claim 15 wherein the first  
6 substrate is a memory module.

7  
8 20. **(ORIGINAL)** An apparatus as recited in claim 15 wherein the first  
9 integrated circuit is a memory device.

10  
11 21. **(ORIGINAL)** An apparatus as recited in claim 15 wherein the first  
12 integrated circuit has an inductive coupling substantially the same as the inductive  
13 coupling of the second integrated circuit.

14  
15 22 - 25. **(CANCELED)**

16  
17 26. **(CURRENTLY AMENDED)** A method comprising:  
18 generating a plurality of differential signals;  
19 transmitting the plurality of differential signals through a first connector  
20 and a second connector to a plurality of differential receivers;  
21 reversing the polarity of alternating differential signals at a crossover  
22 position located substantially closer to the first connector than the second  
23 connector; and  
24 reversing the polarity of alternating differential signals between the second  
25 connector and the plurality of differential receivers.

1  
2 27. **(ORIGINAL)** A method as recited in claim 26 wherein the first  
3 connector generated inductive coupling noise as the differential signals are  
4 transmitted through the first connector.

5  
6 28. **(ORIGINAL)** A method as recited in claim 26 wherein the second  
7 connector generated inductive coupling noise opposite the noise generated by the  
8 first connector as the differential signals are transmitted through the second  
9 connector.

10  
11 29. **(ORIGINAL)** A method as recited in claim 26 further including  
12 decoding the plurality of differential signals.

13  
14 30. **(ORIGINAL)** A method as recited in claim 26 wherein a transmitter  
15 package transmits the plurality of differential signals and a receiver package  
16 receives the plurality of differential signals.

17  
18 31. **(ORIGINAL)** A method as recited in claim 30 further including  
19 modifying the transmitter package such that the coupling coefficient of the  
20 transmitter package is substantially the same as the receiver package.

21  
22 32. **(CURRENTLY AMENDED)** A method comprising:  
23 modifying a transmitter package such that the coupling coefficient of the  
24 transmitter package is substantially the same as the coupling coefficient of a  
25 receiver package;

1 transmitting multiple pairs of differential signals across a plurality of  
2 conductors using the transmitter package;

3 reversing polarity of alternating pairs of differential signal conductors such  
4 that at least one pair of conductors is reversed at a crossover position located  
5 substantially closer to the transmitter package than the receiver package; and

6 receiving the multiple pairs of differential signals using the receiver  
7 package.

8  
9 33. (CANCELED)

10  
11 34. (ORIGINAL) A method as recited in claim 32 further comprising  
12 decoding the multiple pairs of differential signals.

13  
14 35. (CURRENTLY AMENDED) A method as recited in claim 32  
15 wherein the differential signals are transmitted through a pair of connectors on  
16 [[a]] the plurality of conductors, wherein alternating pairs of conductors are  
17 reversed between the pair of connectors.

18  
19 36 - 38. (CANCELED)